Application No.: 10/784,678

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (currently amended): A refractory metal plate comprising:

a metal plate made of a base material and having at least one surface, said base material

comprising at least one of molybdenum, tungsten, molybdenum alloys and tungsten alloys; and

an oxide coating layer formed by depositing oxide powder of at least one of oxide

powders of alumina, silica, zirconia, yttria, titania, magnesia, and calcia onto said at least one

surface of a metal composed of one of molybdenum, tungsten, molybdenum alloys and tungsten

alloys,

wherein said oxide coating layer covers the whole of said at least one surface, the

exposure of a said base material being equal to or less than 1% of a unit area of the oxide coating

layer, said metal having a shape of plate and

wherein, in surface state of the coated metal plate as is a base plate, and a surface

roughness thereof is such that Ra is 20 µm or less and Rmax is 150 µm or less.

2. (original): The refractory metal plate according to claim 1, wherein at least one kind

of said oxide powders is set to 10 µm or less, and said oxide coating layer is obtained by

implementing a heat treatment at a temperature depending on the grain size of said powder.

3. (original): The refractory metal plate according to claim 1, wherein a thickness of

said oxide coating layer is set to 10 to 300um.

4. (original): The refractory metal plate according to claim 1, wherein a surface of said

oxide coating layer is porous, and a surface roughness thereof is such that Ra is 20µm or less and

Rmax is 150µm or less.

5. (cancelled)

6. (original): The refractory metal plate according to claim 1, wherein said oxide

coating layer is formed by plasma spraying.

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7. (original): The refractory metal plate according to claim 1, wherein said oxide

coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent,

painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the

base material, then applying a melting process at a temperature depending on a grain size of the

oxides to be deposited.

8. (original): The refractory metal plate according to claim 1, wherein said oxide

coating layer is formed by forming an oxide coating layer by the use of a high temperature

resistant adhesive, then applying a heat treatment so as to deposit it.

9.-12. (canceled)

13. (original): A setter used in sintering, comprising the refractory metal plate according

to claim 1.

14. (currently amended): A refractory metal plate comprising:

a molybdenum plate having a composition of 99.9% or more purity and having a high

temperature deformation resistant characteristic, said plate having at least one surface; with

an oxide coating layer formed by depositing oxide powder of at least one of oxide

powders of alumina, silica, zirconia, yttria, titania, magnesia, and calcia to said at least one

surface of said plate, wherein said plate is a molybdenum plate having a composition of 99.9% or

more purity and having a high temperature deformation resistant characteristic, and

wherein a size of a disk-shaped crystal grain contained inside said molybdenum plate is

such that a ratio of a longer diameter relative to a shorter diameter of a disk surface is four or

less, a diameter of a disk surface of said molybdenum plate crystal grains is 15mm to 150mm,

and crystal grains account for 1/5 or more of a thickness in a thickness direction of said

molybdenum plate, the exposure of a base material being equal to or less than 1% of a unit area

of the oxide coating layer, said metal having a shape of plate and

wherein, in surface state of the coated metal plate as is a base plate, and a surface

roughness thereof is such that Ra is 20 µm or less and Rmax is 150 µm or less.

15. (original): A setter used in sintering, comprising the refractory metal plate according

to claim 14.

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16. (original): The refractory metal plate according to claim 14, wherein said oxide

coating layer is formed by plasma spraying.

17. (original): The refractory metal plate according to claim 14, wherein said oxide

coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent.

painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the

base material, then applying a melting process at a temperature depending on a grain size of the

oxides to be deposited.

18. (original): The refractory metal plate according to claim 14, wherein said oxide

coating layer is formed by forming an oxide coating layer by the use of a high temperature

resistant adhesive, then applying a heat treatment so as to deposit it.

19.-22. (canceled).

23. (currently amended): A refractory metal plate comprising:

a metal plate having at least one surface;

with an oxide coating layer on said at least one surface, said layer being formed by

depositing oxide powder of at least one of oxide powders of alumina, silica, zirconia, yttria,

titania, magnesia, and calcia to said at least one surface of said plate,

wherein said plate has a composition of 0.1 to 1.0wt% lanthanum or lanthanum oxides

with the remainder composed of molybdenum, has a structure extending in a substantially fixed

direction, and is small in deformation amount at a high temperature, the exposure of a base

material being equal to or less than 1% of a unit area of the oxide coating layer, said metal

having a shape of plate and

wherein, in surface state of the coated metal plate as is a base plate, and a surface

roughness thereof is such that Ra is 20 µm or less and Rmax is 150 µm or less.

24. (original): The refractory metal plate according to claim 23, wherein said plate has

crystal grains exhibiting an interlocking structure in which the structure extends in a fixed

direction so as to be recrystallized, and is excellent in processability and high temperature

deformation resistance.

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25. (original): A setter used in sintering, comprising the refractory metal plate according

to claim 23.

26. (original): The refractory metal plate according to claim 23, wherein said oxide

coating layer is formed by plasma spraying.

27. (original): The refractory metal plate according to claim 23, wherein said oxide

coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent,

painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the

base material, then applying a melting process at a temperature depending on a grain size of the

oxides to be deposited.

28. (original): The refractory metal plate according to claim 23, wherein said oxide

coating layer is formed by forming an oxide coating layer by the use of a high temperature

resistant adhesive, then applying a heat treatment so as to deposit it.

29.-32. (canceled).

33. (original): A setter which is used in sintering and which comprises the refractory

metal plate according to claim 24.

34. (original): The refractory metal plate according to claim 24, wherein said oxide

coating layer is formed by plasma spraying.

35. (original): The refractory metal plate according to claim 24, wherein said oxide

coating layer is formed on a surface of a plate by forming slurry by mixing oxide with a solvent,

painting the slurry with a brush or spraying the slurry on a base material, drying the slurry on the

base material, then applying a melting process at a temperature depending on a grain size of the

oxides to be deposited.

36. (original): The refractory metal plate according to claim 24, wherein said oxide

coating layer is formed by forming an oxide coating layer by the use of a high temperature

resistant adhesive, then applying a heat treatment so as to deposit it.